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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/539,991

05/11/2006

Christian Riondet

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EXAMINER

DUONG, THO V

ART UNIT

PAPER NUMBER

3744

MAIL DATE

DELIVERY MODE

06/04/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/539,991	Applicant(s) RIONDET ET AL.	
	Examiner Tho v. Duong	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4, 9-14 and 16-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-18 is/are allowed.
- 6) ☒ Claim(s) 2-4 and 9-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's amendment filed 3/1/10 is acknowledged. Claims 2-4,9-14 and 16-18 are pending.

Response to Arguments

Applicant's arguments filed 3/1/10 have been fully considered but they are not persuasive. Applicant's argument that Sugimoto's figure 5 fails to disclose both cheeks being offset, and an equivalent offsetting level between the first and second heat exchangers, has been very carefully considered but is not found to be persuasive. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., both cheeks being offset) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In claims 4 and 9, applicant claims that "the cheeks (40) have an equivalent offsetting level between the first and second heat exchanger". Clearly, Sugimoto discloses (figure 5) that cheeks (300) have an offsetting level. It does not appear that the applicant claims that each of the cheek has an offsetting level. Furthermore, Sugimoto discloses that the offset level (h3) is equivalent to the amount of offset between the difference in height of the first and second heat exchangers. Furthermore, applicant's argument that Sugimoto's figure 6 does not disclose the tubes being offset from one another in a direction orthogonal to the tube, has been very carefully considered but is not found to be persuasive. Sugimoto discloses (figure 6) that the tubes (110) and (210) have different thickness, the planar surfaces of tubes (110) is offset with the planar surfaces of the tubes (210), which partially cause the overall offset between

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the first and second heat exchanger and this offset level is compensated by the offset (301) of the side plate (300).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-4 and 9-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "the cheeks" in line 19. There is insufficient antecedent basis for this limitation in the claim.

Claim 9 recites the limitation "the cheeks" in line 19. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 2-4,9-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stoyhoff et al. (US 2003/0075307A1) in view of Sugimoto (US 6,408,939). Stoyhoff discloses (figures 1-1d, and paragraphs 33 and 46-47) a heat exchange module comprising at least a first and a second heat exchanger (12,30), each exchanger comprising fluid circulation tubes (14,32), generally flat, uniformly spaced, having a width; a heat exchanger fin consisting of a corrugated strip comprising a first heat exchange zone (16) and a second heat exchange zone (34); before assembly, the strip comprises a zone (50,52) of weakness able to allow the fin to be parted into a first element (16) and a second element (34); the zone of weakness consists of a straight slot (50) interrupted at some of the faces of the corrugations by at least one residual link (52) provided between the first and second heat exchanger zone. Stoyhoff further discloses (paragraphs 33 and 36) that the residual link (52) can be broken so that first element and the second element are separated after assembling. Stoyhoff substantially discloses all of applicant's claimed invention as discussed above except for the limitation that the tubes of the heat exchanger are offset from one another in a direction orthogonal to the tube and the cheeks have an equivalent offsetting level between the first and the second heat exchangers. Sugimoto discloses (figures 5-6) a heat exchange module that has the tubes (110,210) offset from one another in a direction orthogonal to the tube and side plates (300) including an equivalent offsetting level (301) between a first and a second heat exchangers (130,230) for a purpose of providing a rigid support for the first and second heat exchangers that have unequal heights. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use Sugimoto's teaching in Stoyhoff's device for a purpose of providing a rigid support for the first and second heat exchanger that have unequal height. Regarding claim 3, basing on a geometrical relationship

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between a height (h) of the residual link (52) and a height (H) of the corrugated fin, Stoyhoff discloses (figure 1d) that a height (h) of the residual link (52) is between $H/5$ and $H/30$.

Moreover, applicant has not disclosed any criticality or any unexpected result for having the claimed range of the height of the residual link. It appears that the residual link would perform equally well with the height shown in Stoyhoff, which is able the link to be broken.

Accordingly, the use of the claimed range of height of the residual link is deemed to be a design consideration which fails to patentable distinguish over the prior art of Stoyhoff.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stoyhoff and Sugimoto as applied to claim 9 above, and further in view of Nozaki et al. (US 2002/0125000). Stoyhoff and Sugimoto substantially disclose all of applicant's claimed invention as discussed above except for the limitation that the residual links are broken by moving the heat exchangers one relative to the other. Stoyhoff discloses that the residual link can be broken by a mechanical or chemical means. Nozaki discloses (figure 3 and paragraph 47) a shearing force is applying to the heat exchanger module to move the heat exchange portions relative to each other for a purpose of breaking a residual link (40a) to separate the heat exchange module into two separate heat exchange portions. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use Nozaki's teaching in the combination device of Stoyhoff and Sugimoto for a purpose of breaking the residual link to separate the heat exchange module into two separate heat exchange portions.

Allowable Subject Matter

Claims 16-18 are allowed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho v. Duong whose telephone number is 571-272-4793. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tyler J. Cheryl can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tho v Duong/
Primary Examiner, Art Unit 3744